

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 16:43:39

INPUT SET: S34210.raw

This Raw Listing contains the General Information Section and up to the first 5 pages.

SEQUENCE LISTING

(1) General Information:

(i) APPLICANT: Ni, Jian
Rosen, Craig A.
Pan, James G.
Gentz, Reiner L.
Dixit, Vishva M.

(ii) TITLE OF INVENTION: Death Domain Containing Receptor 4 (DR4: Death Receptor 4), Member of the TNF-Receptor Superfamily and Binding to Trail (AP02-L)

(iii) NUMBER OF SEQUENCES: 12

(iv) CORRESPONDENCE ADDRESS:

- (A) ADDRESSEE: HUMAN GENOME SCIENCES, INC.
- (B) STREET: 9410 KEY WEST AVENUE
- (C) CITY: ROCKVILLE
- (D) STATE: MD
- (E) COUNTRY: US
- (F) ZIP: 20850

(v) COMPUTER READABLE FORM:

- (A) MEDIUM TYPE: Floppy disk
- (B) COMPUTER: IBM PC compatible
- (C) OPERATING SYSTEM: PC-DOS/MS-DOS
- (D) SOFTWARE: PatentIn Release #1.0, Version #1.30

(vi) CURRENT APPLICATION DATA:

- (A) APPLICATION NUMBER: TO BE ASSIGNED
- (B) FILING DATE: HEREWITH
- (C) CLASSIFICATION:

(vi) PRIOR APPLICATION DATA:

(A) APPLICATION NUMBER: 09/013,895
(B) FILING DATE: 27-JAN-1998
(C) CLASSIFICATION:

(vii) ATTORNEY/AGENT INFORMATION:

(A) NAME: STEFFE, ERIC K.
(B) REGISTRATION NUMBER: 36,688
(C) REFERENCE/DOCKET NUMBER: 1488.1300004

(ix) TELECOMMUNICATION INFORMATION:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
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47 (A) TELEPHONE: (202) 371-2600
48 (B) TELEFAX: (202) 371-2540

49

50

51 (2) INFORMATION FOR SEQ ID NO:1:

52

53 (i) SEQUENCE CHARACTERISTICS:

54 (A) LENGTH: 2152 base pairs
55 (B) TYPE: nucleic acid
56 (C) STRANDEDNESS: single
57 (D) TOPOLOGY: linear

58

59 (ii) MOLECULE TYPE: DNA (genomic)

60

61

62 (ix) FEATURE:

63 (A) NAME/KEY: CDS
64 (B) LOCATION: 19..1422

65

66

67

68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

69

70 TTCGGGCACG AGGGCAGG ATG GCG CCA CCA CCA GCT AGA GTA CAT CTA GGT 51
71 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly
72 1 5 10

73

74 GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA 99
75 Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr
76 15 20 25

77

78 GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG 147
79 Glu Ala Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly
80 30 35 40

81

82 AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG 195
83 Arg Ile Glu Pro Arg Gly Gly Arg Gly Ala Leu Pro Thr Ser Met
84 45 50 55

85

86 GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA 243
87 Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly
88 60 65 70 75

89

90 CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC CAC AAG ACC 291
91 Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr
92 80 85 90

93

94 TTC AAG TTT GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA 339
95 Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser
96 95 100 105

97

98 GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG 387
99 Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp

**RAW SEQUENCE LISTING
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103	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser			
104	125	130	135	
105				
106	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC			483
107	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr			
108	140	145	150	155
109				
110	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA			531
111	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys			
112	160	165	170	
113				
114	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA			579
115	Ser Asp Glu Glu Glu Arg Ser Pro Cys Thr Thr Arg Asn Thr Ala			
116	175	180	185	
117				
118	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG			627
119	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met			
120	190	195	200	
121				
122	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG			675
123	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys			
124	205	210	215	
125				
126	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC			723
127	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly			
128	220	225	230	235
129				
130	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG			771
131	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro			
132	240	245	250	
133				
134	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT			819
135	Leu Leu Leu Val Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly			
136	255	260	265	
137				
138	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG			867
139	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu			
140	270	275	280	
141				
142	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT			915
143	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile			
144	285	290	295	
145				
146	CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG			963
147	Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met			
148	300	305	310	315
149				
150	GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA			1011
151	Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro			
152	320	325	330	

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 16:43:40

INPUT SET: S34210.raw

153	GGG GAG GCA CAG TGT CTG CTG GGA CCG GCA GAA GCT GAA GGG TCT CAG	1059
154	Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln	
155	335 340 345	
157		
158	AGG AGG AGG CTG CTG GTT CCA GCA AAT GGT GCT GAC CCC ACT GAG ACT	1107
159	Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr	
160	350 355 360	
161		
162	CTG ATG CTG TTC TTT GAC AAG TTT GCA AAC ATC GTG CCC TTT GAC TCC	1155
163	Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser	
164	365 370 375	
165		
166	TGG GAC CAG CTC ATG AGG CAG CTG GAC CTC ACG AAA AAT GAG ATC GAT	1203
167	Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp	
168	380 385 390 395	
169		
170	GTG GTC AGA GCT GGT ACA GCA GGC CCA GGG GAT GCC TTG TAT GCA ATG	1251
171	Val Val Arg Ala Gly Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met	
172	400 405 410	
173		
174	CTG ATG AAA TGG GTC AAC AAA ACT GGA CGG AAC GCC TCG ATC CAC ACC	1299
175	Leu Met Lys Trp Val Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr	
176	415 420 425	
177		
178	CTG CTG GAT GCC TTG GAG AGG ATG GAA GAG AGA CAT GCA AAA GAG AAG	1347
179	Leu Leu Asp Ala Leu Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys	
180	430 435 440	
181		
182	ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TTC ATC TAC TTA GAA GAT	1395
183	Ile Gln Asp Leu Leu Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp	
184	445 450 455	
185		
186	GGC ACA GGC TCT GCC GTG TCC TTG GAG TGAAAGACTC TTTTTACCAAG	1442
187	Gly Thr Gly Ser Ala Val Ser Leu Glu	
188	460 465	
189		
190	AGGTTCCCTC TTAGGTGTTA GGAGTTAATA CATATTAGGT TTTTTTTTT TTTAACATGT	1502
191		
192	ATACAAAGTA AATTCTTAGC CACGTGTATT GGCTCCTGCC TGTAATCCCA TCACTTGGG	1562
193		
194	AGGCTGACGC CGGTGGATCC ACTTGAGGTC CGAAGTTCCA AGACCAGCCC TGAACCAACA	1622
195		
196	TCGTGGAAAT GCCCGTCTTT TACAAAAAAA TACCAAAAT TCAACTGGAA TGTGCATGGT	1682
197		
198	GTGTGCCATC ATTCCTCGG CTAACTACGG GAGGTCTGAG GCCAGGAGAA TCCACTTGAA	1742
199		
200	CCCCACGAAG GACAGTGTAG ACTGCAGATT GCACCACTGC ACTCCCAGCC TGGGAACACA	1802
201		
202	GAGCAAGACT CTGTCTCAAG ATAAAATAAA ATAAACTTGA AAGAATTATT GCCCGACTGA	1862
203		
204	GGCTCACATG CCAAAGGAAA ATCTGGTTCT CCCCTGAGCT GGCCTCCGTG TGTTTCCTTA	1922
205		

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**DATE: 12/14/1999
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206 TCATGGTGGT CAATTGGAGG TGTAAATTG AATGGATTAA GGAACACCTA GAACACTGGT 1982
207
208 AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTTC CCAGAGGGGA 2042
209
210 TTGGCATGCG ATCGGGTGGG CTGAGTGGAA AAGACCTACC CTTAATTGG GGGGGCACCG 2102
211
212 TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAA 2152
213
214
215 (2) INFORMATION FOR SEQ ID NO:2:
216
217 (i) SEQUENCE CHARACTERISTICS:
218 (A) LENGTH: 468 amino acids
219 (B) TYPE: amino acid
220 (D) TOPOLOGY: linear
221
222 (ii) MOLECULE TYPE: protein
223
224 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:
225
226 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly Ala Phe Leu Ala Val
227 1 5 10 15
228
229 Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr Glu Ala Ala Ala
230 20 25 30
231
232 Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly Arg Ile Glu Pro Arg
233 35 40 45
234
235 Gly Gly Gly Arg Gly Ala Leu Pro Thr Ser Met Gly Gln His Gly Pro
236 50 55 60
237
238 Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly Pro Arg Pro Ala Arg
239 65 70 75 80
240
241 Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr Phe Lys Phe Val Val
242 85 90 95
243
244 Val Gly Val Leu Leu Gln Val Val Pro Ser Ser Ala Ala Thr Ile Lys
245 100 105 110
246
247 Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp Glu His Ser Pro Leu
248 115 120 125
249
250 Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser Glu Arg Pro Gly Ala
251 130 135 140
252
253 Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr Asn Ala Ser Asn Asn
254 145 150 155 160
255
256 Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys Ser Asp Glu Glu
257 165 170 175
258

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 16:43:41

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***** PREVIOUSLY ERRORED SEQUENCES - EDITED *****

51 (2) INFORMATION FOR SEQ ID NO:1:
 52
 53 (i) SEQUENCE CHARACTERISTICS:
 54 (A) LENGTH: 2152 base pairs
 55 (B) TYPE: nucleic acid
 56 (C) STRANDEDNESS: single
 57 (D) TOPOLOGY: linear
 58
 59 (ii) MOLECULE TYPE: DNA (genomic)
 60
 61
 62 (ix) FEATURE:
 63 (A) NAME/KEY: CDS
 64 (B) LOCATION: 19..1422
 65
 66
 67
 68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:
 69
 70 TTTCGGGCACG AGGGCAGG ATG GCG CCA CCA GCT AGA GTA CAT CTA GGT 51
 71 Met Ala Pro Pro Pro Ala Arg Val His Leu Gly
 72 1 5 10
 73
 74 GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA 99
 75 Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr
 76 15 20 25
 77
 78 GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG 147
 79 Glu Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly
 80 30 35 40
 81
 82 AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG 195
 83 Arg Ile Glu Pro Arg Gly Gly Arg Gly Ala Leu Pro Thr Ser Met
 84 45 50 55
 85
 86 GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA 243
 87 Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly
 88 60 65 70 75
 89
 90 CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC CAC AAG ACC 291
 91 Pro Arg Pro Ala Arg Glu Ala Ser Pro Arg Leu Arg Val His Lys Thr
 92 80 85 90
 93
 94 TTC AAG TTT GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA 339
 95 Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser
 96 95 100 105
 97

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 16:43:41

INPUT SET: S34210.raw

98	GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG	387
99	Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp	
100	110 115 120	
101		
102	GAA CAT AGC CCT TTG GGA GAG TTG TGT CCA CCA GGA TCT CAT AGA TCA	435
103	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser	
104	125 130 135	
105		
106	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC	483
107	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr	
108	140 145 150 155	
109		
110	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA	531
111	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys	
112	160 165 170	
113		
114	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA	579
115	Ser Asp Glu Glu Arg Ser Pro Cys Thr Thr Arg Asn Thr Ala	
116	175 180 185	
117		
118	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG	627
119	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met	
120	190 195 200	
121		
122	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG	675
123	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys	
124	205 210 215	
125		
126	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC	723
127	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly	
128	220 225 230 235	
129		
130	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG	771
131	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro	
132	240 245 250	
133		
134	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT	819
135	Leu Leu Leu Val Ala Val Ile Val Cys Cys Cys Ile Gly Ser Gly	
136	255 260 265	
137		
138	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG	867
139	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu	
140	270 275 280	
141		
142	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT	915
143	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile	
144	285 290 295	
145		
146	CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG	963
147	Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met	
148	300 305 310 315	
149		
150	GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA	1011

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

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151	Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro		
152	320	325	330
153			
154	GGG GAG GCA CAG TGT CTG CTG GGA CCG GCA GAA GCT GAA GGG TCT CAG		1059
155	Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln		
156	335	340	345
157			
158	AGG AGG AGG CTG CTG GTT CCA GCA AAT GGT GCT GAC CCC ACT GAG ACT		1107
159	Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr		
160	350	355	360
161			
162	CTG ATG CTG TTC TTT GAC AAG TTT GCA AAC ATC GTG CCC TTT GAC TCC		1155
163	Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser		
164	365	370	375
165			
166	TGG GAC CAG CTC ATG AGG CAG CTG GAC CTC ACG AAA AAT GAG ATC GAT		1203
167	Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp		
168	380	385	390
169			395
170	GTG GTC AGA GCT GGT ACA GCA GGC CCA GGG GAT GCC TTG TAT GCA ATG		1251
171	Val Val Arg Ala Gly Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met		
172	400	405	410
173			
174	CTG ATG AAA TGG GTC AAC AAA ACT GGA CGG AAC GCC TCG ATC CAC ACC		1299
175	Leu Met Lys Trp Val Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr		
176	415	420	425
177			
178	CTG CTG GAT GCC TTG GAG AGG ATG GAA GAG AGA CAT GCA AAA GAG AAG		1347
179	Leu Leu Asp Ala Leu Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys		
180	430	435	440
181			
182	ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TTC ATC TAC TTA GAA GAT		1395
183	Ile Gln Asp Leu Leu Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp		
184	445	450	455
185			
186	GGC ACA GGC TCT GCC GTG TCC TTG GAG TGAAAGACTC TTTTTACCAAG		1442
187	Gly Thr Gly Ser Ala Val Ser Leu Glu		
188	460	465	
189			
190	AGGTTTCCTC TTAGGTGTTA GGAGTTAATA CATATTAGGT TTTTTTTTT TTTAACATGT		1502
191			
192	ATACAAAGTA AATTCTTAGC CACGTGTATT GGCTCCTGCC TGTAATCCA TCACTTGGG		1562
193			
194	AGGCTGACGC CGGTGGATCC ACTTGAGGTC CGAAGTTCCA AGACCAGCCC TGAACCAAACA		1622
195			
196	TCGTGGAAAT GCCCGTCTTT TACAAAAAAA TACCAAAAT TCAACTGGAA TGTGCATGGT		1682
197			
198	GTGTGCCATC ATTTCTCGG CTAACATACGG GAGGTCTGAG GCCAGGAGAA TCCACTTGAA		1742
199			
200	CCCCACGAAG GACAGTGTAG ACTGCAGATT GCACCACTGC ACTCCCAGCC TGGGAACACA		1802
201			
202	GAGCAAGACT CTGTCTCAAG ATAAAATAAA ATAAACTTGA AAGAATTATT GCCCGACTGA		1862
203			

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**DATE: 12/14/1999
TIME: 16:43:42***INPUT SET: S34210.raw***

204	GGCTCACATG CCAAAGGAAA ATCTGGTTCT CCCCTGAGCT GGCCCTCCGTG TGTTTCCTTA	1922
205		
206	TCATGGTGGT CAATTGGAGG TGTAAATTTG AATGGATTAA GGAACACCTA GAACACTGGT	1982
207		
208	AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTTC CCAGAGGGGA	2042
209		
210	TTGGCATGCG ATCGGGTGGAA CTGAGTGGAA AAGACCTACC CTTAATTTGG GGGGGCACCG	2102
211		
212	TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAA	2152
213		
214		

PAGE: 1

**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
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Line	Error	Original Text
32	Wrong application Serial Number	(A) APPLICATION NUMBER: TO BE ASSIGNED

PAGE: 1

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**DATE: 12/14/1999
TIME: 04:37:43**INPUT SET: S34210.raw**

This Raw Listing contains the General
Information Section and those Sequences
containing ERRORS.

1 SEQUENCE LISTING
2

3 (1) General Information:

Does Not Comply
Corrected Diskette Needed4
5 (i) APPLICANT: Ni, Jian
6 Rosen, Craig A.
7 Pan, James G.
8 Gentz, Reiner L.
9 Dixit, Vishva M.10
11 (ii) TITLE OF INVENTION: Death Domain Containing Receptor 4 (DR4: Death
12 Receptor 4), Member of the TNF-Receptor
13 Superfamily and Binding to Trail (AP02-L)14
15 (iii) NUMBER OF SEQUENCES: 1216
17 (iv) CORRESPONDENCE ADDRESS:18 (A) ADDRESSEE: HUMAN GENOME SCIENCES, INC.
19 (B) STREET: 9410 KEY WEST AVENUE
20 (C) CITY: ROCKVILLE
21 (D) STATE: MD
22 (E) COUNTRY: US
23 (F) ZIP: 2085024
25 (v) COMPUTER READABLE FORM:26 (A) MEDIUM TYPE: Floppy disk
27 (B) COMPUTER: IBM PC compatible
28 (C) OPERATING SYSTEM: PC-DOS/MS-DOS
29 (D) SOFTWARE: PatentIn Release #1.0, Version #1.3030
31 (vi) CURRENT APPLICATION DATA:32 (A) APPLICATION NUMBER: TO BE ASSIGNED
33 (B) FILING DATE: HEREWITH
34 (C) CLASSIFICATION:35
36 (vi) PRIOR APPLICATION DATA:37 (A) APPLICATION NUMBER: 09/013,895
38 (B) FILING DATE: 27-JAN-1998
39 (C) CLASSIFICATION:40
41 (viii) ATTORNEY/AGENT INFORMATION:42 (A) NAME: STEFFE, ERIC K.
43 (B) REGISTRATION NUMBER: 36,688
44 (C) REFERENCE/DOCKET NUMBER: 1488.1300004

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45

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 04:37:43

INPUT SET: S34210.raw

46 (ix) TELECOMMUNICATION INFORMATION:
47 (A) TELEPHONE: (202) 371-2600
48 (B) TELEFAX: (202) 371-2540
49
50

ERRORED SEQUENCES FOLLOW:

51 (2) INFORMATION FOR SEQ ID NO:1:

53 (i) SEQUENCE CHARACTERISTICS:
54 (A) LENGTH: 2152 base pa
55 (B) TYPE: nucleic acid
56 (C) STRANDEDNESS: single
57 (D) TOPOLOGY: linear

59 (ii) MOLECULE TYPE: DNA (genomic)

62 (ix) FEATURE:

63 (A) NAME/KEY: CDS
64 (B) LOCATION: 19..1422

68 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:

70 TTCGGGCACG AGGGCAGG ATG GCG CCA CCA CCA GCT AGA GTA CAT CTA GGT

51-

Met Ala Pro Pro Pro Ala Arg Val His Leu Gly
1 5 10

--> 75 GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AGC GCA GCG AGT GGG ACA
 76 Ala Phe Leu Ala Val Thr Pro Asn Pro Gly Ser Ala Ala Ser Gly Thr
 77 15 20 25

99

79 GAG GCA GCC GCG GCC ACA CCC AGC AAA GTG TGG GGC TCT TCC GCG GGG
 80 Glu Ala Ala Ala Ala Thr Pro Ser Lys Val Trp Gly Ser Ser Ala Gly
 81 30 35 40

147

83 AGG ATT GAA CCA CGA GGC GGG GGC CGA GGA GCG CTC CCT ACC TCC ATG
84 Arg Ile Glu Pro Arg Gly Gly Arg Gly Ala Leu Pro Thr Ser Met
85 45 50 55

195

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87 GGA CAG CAC GGA CCC AGT GCC CGG GCC CGG GCA GGG CGC GCC CCA GGA
88 Gly Gln His Gly Pro Ser Ala Arg Ala Arg Ala Gly Arg Ala Pro Gly
89   60           65           70           75
90
91 CCC AGG CCG GCG CGG GAA GCC AGC CCT CGG CTC CGG GTC SAC AAG ACC

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243

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

 DATE: 12/14/1999
 TIME: 04:37:43
INPUT SET: S34210.raw

93	80	85	90	
94				
95	TTC AAG TTT GTC GTC GGG GTC CTG CTG CAG GTC GTA CCT AGC TCA			339
96	Phe Lys Phe Val Val Val Gly Val Leu Leu Gln Val Val Pro Ser Ser			
97	95	100	105	
98				
99	GCT GCA ACC ATC AAA CTT CAT GAT CAA TCA ATT GGC ACA CAG CAA TGG			387
100	Ala Ala Thr Ile Lys Leu His Asp Gln Ser Ile Gly Thr Gln Gln Trp			
101	110	115	120	
102				
103	GAA CAT AGC CCT TTG GGA GAG TTG TGT CCA CCA GGA TCT CAT AGA TCA			435
104	Glu His Ser Pro Leu Gly Glu Leu Cys Pro Pro Gly Ser His Arg Ser			
105	125	130	135	
106				
107	GAA CGT CCT GGA GCC TGT AAC CGG TGC ACA GAG GGT GTG GGT TAC ACC			483
108	Glu Arg Pro Gly Ala Cys Asn Arg Cys Thr Glu Gly Val Gly Tyr Thr			
109	140	145	150	155
110				
111	AAT GCT TCC AAC AAT TTG TTT GCT TGC CTC CCA TGT ACA GCT TGT AAA			531
112	Asn Ala Ser Asn Asn Leu Phe Ala Cys Leu Pro Cys Thr Ala Cys Lys			
113	160	165	170	
114				
115	TCA GAT GAA GAA GAG AGA AGT CCC TGC ACC ACG ACC AGG AAC ACA GCA			579
116	Ser Asp Glu Glu Glu Arg Ser Pro Cys Thr Thr Arg Asn Thr Ala			
117	175	180	185	
118				
119	TGT CAG TGC AAA CCA GGA ACT TTC CGG AAT GAC AAT TCT GCT GAG ATG			627
120	Cys Gln Cys Lys Pro Gly Thr Phe Arg Asn Asp Asn Ser Ala Glu Met			
121	190	195	200	
122				
123	TGC CGG AAG TGC AGC ACA GGG TGC CCC AGA GGG ATG GTC AAG GTC AAG			675
124	Cys Arg Lys Cys Ser Thr Gly Cys Pro Arg Gly Met Val Lys Val Lys			
125	205	210	215	
126				
127	GAT TGT ACG CCC TGG AGT GAC ATC GAG TGT GTC CAC AAA GAA TCA GGC			723
128	Asp Cys Thr Pro Trp Ser Asp Ile Glu Cys Val His Lys Glu Ser Gly			
129	220	225	230	235
130				
131	AAT GGA CAT AAT ATA TGG GTG ATT TTG GTT GTG ACT TTG GTT GTT CCG			771
132	Asn Gly His Asn Ile Trp Val Ile Leu Val Val Thr Leu Val Val Pro			
133	240	245	250	
134				
135	TTG CTG TTG GTG GCT GTG CTG ATT GTC TGT TGT TGC ATC GGC TCA GGT			819
136	Leu Leu Leu Val Ala Val Leu Ile Val Cys Cys Cys Ile Gly Ser Gly			
137	255	260	265	
138				
139	TGT GGA GGG GAC CCC AAG TGC ATG GAC AGG GTG TGT TTC TGG CGC TTG			867
140	Cys Gly Gly Asp Pro Lys Cys Met Asp Arg Val Cys Phe Trp Arg Leu			
141	270	275	280	
142				
143	GGT CTC CTA CGA GGG CCT GGG GCT GAG GAC AAT GCT CAC AAC GAG ATT			915
144	Gly Leu Leu Arg Gly Pro Gly Ala Glu Asp Asn Ala His Asn Glu Ile			
145	285	290	295	

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 04:37:44

INPUT SET: S34210.raw

146
 147 CTG AGC AAC GCA GAC TCG CTG TCC ACT TTC GTC TCT GAG CAG CAA ATG 963
 148 Leu Ser Asn Ala Asp Ser Leu Ser Thr Phe Val Ser Glu Gln Gln Met
 149 300 305 310 315
 150
 151 GAA AGC CAG GAG CCG GCA GAT TTG ACA GGT GTC ACT GTA CAG TCC CCA 1011
 152 Glu Ser Gln Glu Pro Ala Asp Leu Thr Gly Val Thr Val Gln Ser Pro
 153 320 325 330
 154
 155 GGG GAG GCA CAG TGT CTG CTG GGA CCG GCA GAA GCT GAA GGG TCT CAG 1059
 156 Gly Glu Ala Gln Cys Leu Leu Gly Pro Ala Glu Ala Glu Gly Ser Gln
 157 335 340 345
 158
 159 AGG AGG AGG CTG CTG GTT CCA GCA AAT GGT GCT GAC CCC ACT GAG ACT 1107
 160 Arg Arg Arg Leu Leu Val Pro Ala Asn Gly Ala Asp Pro Thr Glu Thr
 161 350 355 360
 162
 163 CTG ATG CTG TTC TTT GAC AAG TTT GCA AAC ATC GTG CCC TTT GAC TCC 1155
 164 Leu Met Leu Phe Phe Asp Lys Phe Ala Asn Ile Val Pro Phe Asp Ser
 165 365 370 375
 166
 167 TGG GAC CAG CTC ATG AGG CAG CTG GAC CTC ACG AAA AAT GAG ATC GAT 1203
 168 Trp Asp Gln Leu Met Arg Gln Leu Asp Leu Thr Lys Asn Glu Ile Asp
 169 380 385 390 395
 170
 171 GTG GTC AGA GCT GGT ACA GCA GGC CCA GGG GAT GCC TTG TAT GCA ATG 1251
 172 Val Val Arg Ala Gly Thr Ala Gly Pro Gly Asp Ala Leu Tyr Ala Met
 173 400 405 410
 174
 175 CTG ATG AAA TGG GTC AAC AAA ACT GGA CGG AAC GCC TCG ATC CAC ACC 1299
 176 Leu Met Lys Trp Val Asn Lys Thr Gly Arg Asn Ala Ser Ile His Thr
 177 415 420 425
 178
 179 CTG CTG GAT GCC TTG GAG AGG ATG GAA GAG AGA CAT GCA AAA GAG AAG 1347
 180 1347
 181 Leu Leu Asp Ala Leu Glu Arg Met Glu Glu Arg His Ala Lys Glu Lys
 182 430 435 440
 183
 --> 184 ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TTC ATC TAC TTA GAA GAT 1395
 185 Ile Gln Asp Leu Leu Val Asp Ser Gly Lys Phe Ile Tyr Leu Glu Asp
 186 445 450 455
 187
 188 GGC ACA GGC TCT GCC GTG TCC TTG GAG TGAAAGACTC TTTTTACCAAG 1442
 189 Gly Thr Gly Ser Ala Val Ser Leu Glu
 190 460 465
 191
 192 AGGTTTCCTC TTAGGTGTTA GGAGTTAATA CATATTAGGT TTTTTTTTTT
 --> 193 TTTAACATGT 1502
 194
 195 ATACAAAGTA AATTCTTAGC CACGTGTATT GGCTCCTGCC TGTAATCCCC
 --> 196 TCACCTTGAG 1562
 197
 198 AGGCTGACGC CGGTGGATCC ACTTGAGGTC CGAAGTTCCA AGACCAGCCC

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 04:37:44

INPUT SET: S34210.raw

```
--> 199 TGAACCAACA 1622
200
201 TCGTGGAAAT GCCCGTCTTT TACAAAAAAA TACAAAAAAT TCAACTGGAA
--> 202 TGTGCATGGT 1682
203
204 GTGTGCCATC ATTCCTCGG CTAAC TACGG GAGGTCTGAG GCCAGGAGAA
--> 205 TCCACTTGAA 1742
206
207 CCCCACGAAG GACAGTGTAG ACTGCAGATT GCACCACTGC ACTCCCAGCC
--> 208 TGGGAACACA 1802
209
210 GAGCAAGACT CTGTCTCAAG ATAAAATAAA ATAAACTTGA AAGAATTATT
--> 211 GCCCGACTGA 1862
212
213 GGCTCACATG CCAAAGGAAA ATCTGGTTCT CCCCTGAGCT GGCCCTCCGTG
--> 214 TGTTTCCTTA 1922
215
216 TCATGGTGGT CAATTGGAGG TGTAAATTTG AATGGATTAA GGAACACCTA
--> 217 GAACACTGGT 1982
218
219 AAGGCATTAT TTCTGGGACA TTATTTCTGG GCATGTCTTC GAGGGTGTGTT
--> 220 CCAGAGGGGA 2042
221
222 TTGGCATGCG ATCGGGTGGA CTGAGTGGAA AAGACCTACC CTTAATTTGG
--> 223 GGGGGCACCG 2102
224
225 TCCGACAGAC TGGGGAGCAA GATAGAAGAA AACAAAAAAA AAAAAAAA
226 2152
227
228
```

*None
Error*

```
831 (2) INFORMATION FOR SEQ ID NO:6:
832
833 (i) SEQUENCE CHARACTERISTICS:
--> 834 (A) LENGTH: 426 base pairs
835 (B) TYPE: nucleic acid
836 (C) STRANDEDNESS: single
837 (D) TOPOLOGY: linear
838
839 (ii) MOLECULE TYPE: DNA (genomic)
840
841
842
843
844 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:6:
845
846 GGCANAGGTN CGTACCTAGC TCACCTGCAA CCATCAAAC TNAATGATCAA
--> 847 TCAATTGGCA 60
848
849 CACAGCAATG GGAAACATAG CCCTTGGAA GANTTGTNTC CACCAGGATC
--> 850 TCATAGATCA 120
851
852 AACACATCCTG GGAGCCTGTT AACCGGTGCC CCAAAGGNTG GTCAAGGTCA
```

None

PAGE: 6

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**

DATE: 12/14/1999
TIME: 04:37:44

INPUT SET: S34210.raw

--> 853 AGGAATTGTT 180
854
855 NCGCCCTGGA AGTGAACATC GAGTGTNTCC ACAAAGGATT CAGGCAATGG
--> 856 GACATAAATA 240
857
858 TATGGGTGAA TTTTGGTTGT GAACTTGTT TGNTCCCGTT GNTGTTGNTG
--> 859 GCTGTGCTGA 300
860
861 TTGTTTGTG TTGCATCGGC TTCAGGTTNT GGAGGGGGAC CCAAGTGCAT
--> 862 GGACAGGGTG 360
863
864 TGTTTCTGGG GTTTGGGTCT CTTAGAGGGC NTGGGTTANG GCANGTTCAC
--> 865 AAGGGTTTA 420
866
867 GCAANG 426
868

869 (2) INFORMATION FOR SEQ ID NO:7:
870
871 (i) SEQUENCE CHARACTERISTICS:
--> 872 (A) LENGTH: 339 base pairs
873 (B) TYPE: nucleic acid
874 (C) STRANDEDNESS: single
875 (D) TOPOLOGY: linear
876
877 (ii) MOLECULE TYPE: DNA (genomic)
878
879
880
881
882 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:7:
883
884 TGGGGCTGAG GACAATGCTG ACNACGAGAT TCTGAGCAAC GCAGNACTNG
--> 885 CTGTCCACTT 60
886
887 TCGTCTNTGN GCAGCAAATG GAAAGCCAGG AGCCGGCAGA TTTGACAGGT
--> 888 GTCACTGTAC 120
889
890 AGTCCCCAGG GGAGGCACAG TGTCTGCTGG TGAGTTGGGG ACAGGCCCTT
--> 891 GCAAGACCTT 180
892
893 GTGAGGCAGG GGGTGAAGGC CATGNCTCGG CTTCNNNTGG TCAAAGGGGA
--> 894 AGTGGAGCCT 240
895
896 GAGGGAGATG GGACTTNAGG GGGACGGNGC TGCGTGGGG AAAAGCAGCC
--> 897 ACCNTTGAC 300
898
899 AAGGGGGACA GGCATTTTN CAAATGTGTG CTTNTTGGT
900

339

943 (2) INFORMATION FOR SEQ ID NO:11:
944
945 (i) SEQUENCE CHARACTERISTICS:

**RAW SEQUENCE LISTING
PATENT APPLICATION US/09/448,868**DATE: 12/14/1999
TIME: 04:37:45**INPUT SET: S34210.raw**

--> 946 (A) LENGTH: 29 base pairs
947 (B) TYPE: nucleic acid
948 (C) STRANDEDNESS: single
949 (D) TOPOLOGY: linear
950
951 (ii) MOLECULE TYPE: DNA (genomic)
952
953 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:11:
954
955 29

Dane ← GCAGGGATCCT CAATTATGTC CATTGCCTG

958 (2) INFORMATION FOR SEQ ID NO:12:
959
960 (i) SEQUENCE CHARACTERISTICS:
--> 961 (A) LENGTH: 29 base pairs
962 (B) TYPE: nucleic acid
963 (C) STRANDEDNESS: single
964 (D) TOPOLOGY: linear
965
966 (ii) MOLECULE TYPE: DNA (genomic)
967
968 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:12:
969
970 29

Dane ← GCGAAGCTTT CAATTATGTC C

**SEQUENCE VERIFICATION REPORT
PATENT APPLICATION US/09/448,868**

 DATE: 12/14/1999
 TIME: 04:37:45
INPUT SET: S34210.raw

Line	Error	Original Text
32	Wrong application Serial Number	(A) APPLICATION NUMBER: TO BE ASSIGNED
54	Entered (2152) and Calc. Seq. Length (1453) differ	(A) LENGTH: 2152 base pairs
75	# of Sequences for line conflicts w/ running total	GCG TTC CTG GCA GTG ACT CCG AAT CCC GGG AG
184	# of Sequences for line conflicts w/ running total	ATT CAG GAC CTC TTG GTG GAC TCT GGA AAG TT
193	# of Sequences for line conflicts w/ running total	TTTAACATGT 1502
196	# of Sequences for line conflicts w/ running total	TCACTTGGG 1562
199	# of Sequences for line conflicts w/ running total	TGAACCAACA 1622
202	# of Sequences for line conflicts w/ running total	TGTGCATGGT 1682
205	# of Sequences for line conflicts w/ running total	TCCACTTGAA 1742
208	# of Sequences for line conflicts w/ running total	TGGGAACACA 1802
211	# of Sequences for line conflicts w/ running total	GCCCCACTGA 1862
214	# of Sequences for line conflicts w/ running total	TGTTTCCTTA 1922
217	# of Sequences for line conflicts w/ running total	GAACACTGGT 1982
220	# of Sequences for line conflicts w/ running total	CCAGAGGGGA 2042
223	# of Sequences for line conflicts w/ running total	GGGGGCACCG 2102
834	Entered (426) and Calc. Seq. Length (76) differ	(A) LENGTH: 426 base pairs
847	# of Sequences for line conflicts w/ running total	TCAATTGGCA 60
850	# of Sequences for line conflicts w/ running total	TCATAGATCA 120
853	# of Sequences for line conflicts w/ running total	AGGAATTGTT 180
856	# of Sequences for line conflicts w/ running total	GACATAAATA 240
859	# of Sequences for line conflicts w/ running total	GCTGTGCTGA 300
862	# of Sequences for line conflicts w/ running total	GGACAGGGTG 360
865	# of Sequences for line conflicts w/ running total	AAGGGTTTA 420
872	Entered (339) and Calc. Seq. Length (89) differ	(A) LENGTH: 339 base pairs
885	# of Sequences for line conflicts w/ running total	CTGTCCACTT 60
888	# of Sequences for line conflicts w/ running total	GTCACTGTAC 120
891	# of Sequences for line conflicts w/ running total	GCAAGACCTT 180
894	# of Sequences for line conflicts w/ running total	AGTGGAGCCT 240
897	# of Sequences for line conflicts w/ running total	ACCNTTGAC 300
946	Entered (29) and Calc. Seq. Length (0) differ	(A) LENGTH: 29 base pairs
961	Entered (29) and Calc. Seq. Length (0) differ	(A) LENGTH: 29 base pairs